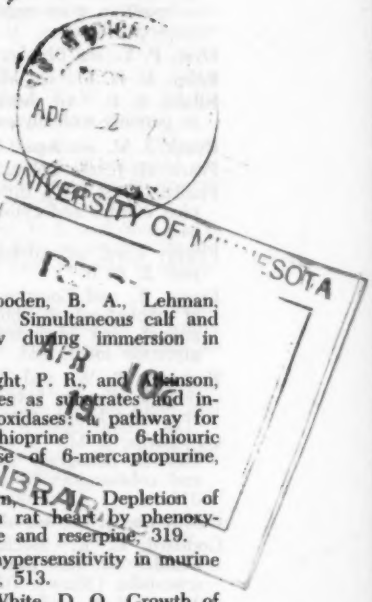
THE AUSTRALIAN JOURNAL OF EXPERIMENTAL BIOLOGY AND MEDICAL SCIENCE

VOLUME XLVII



AUTHOR INDEX

Ada, G. L., *see* Herd, Z. L.

Agar, N. S., and Evans, J. V. Immunological studies of sheep and goat haemoglobins, 401.

Atkinson, M. R., *see* Chalmers, A. H.

Australian Physiological and Pharmacological Society, 12th Meeting, Melbourne, 28th-30th May, 1969. Proceedings, P1. (See part 4.)

Australian Physiological and Pharmacological Society, 13th Meeting, Sydney, 27th-29th August, 1969. Proceedings, P1. (See part 6.)

Barker, S., *see* Lintern, S. M.

Bateman, R. G., and Rowley, D. The natural resistance of pigeons to type III pneumococcus, 733.

Beal, R. W., and Read, W. M. F. Studies on the plasma protein binding of [^{58}Co]-vitamin B_{12}.
5. Relationship of granulocytes to binding capacity, 387.
6. Binding capacity of separated protein fractions, 393.

Bentwich, Z., *see* Ndor, D.

Bhaskaran, K., Dyer, P. Y., and Rogers, G. E. Sex pili in *Vibrio cholerae*, 647.

Bindon, B. M., *see* Martin, F. I. R.

Blunt, M. H., Huisman, T. H. J., and Lewis, J. P. The production of haemoglobin C in adult sheep and goats, 601.

Boettcher, B., and de la Lande, F. A. Electrophoresis of human saliva and identification of inherited variants of amylase isozymes, 97.

Bommer, W. The life cycle of virulent toxoplasma in cell cultures, 505.

Boyden, S. The impact of civilisation on human biology, 287.

Bradley, T. R., *see* White, D. O.

Brailsford Robertson memorial lecture. The impact of civilisation on human biology, by S. Boyden, 287.

Butler, H. M., Hurse, A., Thursky, E. and Shulman, A. Bacterial action of selected phenanthroline chelates and related compounds, 541.

Campbell, L. B., Gooden, B. A., Lehman, R. G., and Pym, J. Simultaneous calf and forearm blood flow during immersion in man, 747.

Chalmers, A. H., Knight, P. R., and Atkinson, M. R. 6-Thiopurines as substrates and inhibitors of purine oxidases: a pathway for conversion of azathioprine into 6-thiouric acid without release of 6-mercaptopurine, 263.

Chang, P., and Fearn, H. Depletion of catecholamines from rat heart by phenoxybenzamine, tyramine and reserpine, 319.

Cheers, C. Delayed hypersensitivity in murine pulmonary pertussis, 513.

Cheyne, I. M., and White, D. O. Growth of paramyxoviruses in anucleate cells, 145.

Cheyne, I. M., *see also* White, D. O.

Cividalli, G., *see* Naor, D.

Cole, G. J., *see* Smeaton, T. C.

Cooke, A. R. Acid and pepsin secretion in response to endogenous and exogenous cholinergic stimulation and pentapeptide, 197.

Coombs, R. R. A., *see* Lascelles, A. K.

Courtice, F. C., *see* Fraser, R. and Roberts, J. C.

Creed, K. E., and Wilson, J. A. F. The latency of response of secretory acinar cells to nerve stimulation in the submandibular gland of the cat, 135.

Cunningham, A. J. The development of clones of antibody-forming cells in the spleens of irradiated mice.
1. Detection of plaque-forming cell colonies, and their relationship to haemolytic foci, 485.
2. Some properties of plaque-forming cell colonies and evidence for their clonal nature, 493.

de la Lande, F. A., *see* Boettcher, B.

Diener, E., *see* Marchalonis, J. J.

Dixson, S., *see* Dwyer, F. P.

Durack, D. T., Gubbay, S. S., and Kakulas, B. A. Electrophysiological studies in the Rottnest quokka with nutritional myopathy, 581.

Dwyer, F. P., Reid, I. K., Shulman, A., Laycock, G. M., and Dixson, S. The biological actions of 1,10-phenanthroline and 2,2′-bipyridine hydrochlorides, quaternary salts and metal chelates and related compounds.
1. Bacteriostatic action on selected gram-positive, gram-negative and acid-fast bacteria, 203.

Dyer, P. Y., *see* Bhaskaran, K.

Ealey, E. H. M., *see* Marchalonis, J. J.

Elliott, R. B. An abnormality of insulin-type in patients with myocardial infarcation, 305.

Evans, J. V., *see* Agar, N. S.

Fearn, H. J., *see* Chang, P.

Finckh, E. S. Thin diffusion chambers for *in vivo* culture and cytological study of tissue, 643.

Florey, Lord, of Adelaide, memorial to the, part 2, p. ii.

Fraser, R., and Courtice, F. C. The transport of cholesterol in thoracic duct lymph of animals fed chelesterol with varying triglyceride loads, 723.

Furneaux, R. W., and Tracy, G. D. Distribution of albumin between plasma and thoracic duct lymph after haemorrhage, 447.

Gawthorne, J. M. A method for the estimation of nanogram amounts of cobamides and cobinamides in sheep rumen contents, 311.

Gawthorne, J. M., *see also* Somers, M.

Goddard, C. K. Mechanics of the urinary bladder of the lizard *Tiliqua scincoides scincoides* (Shaw), 701.

Goldrick, R. B., *see* Grace, C. S.

Gooden, B. A., *see* Campbell, L. B.

Grace, C. S., and Goldrick, R. B. Tissue fibrinolytic activity in obesity, 397.

Gubbay, S. S., *see* Durack, D. T.

Gurner, B. W., *see* Lascelles, A. K.

Ham, J. M. Reduction of platelet adhesiveness *in vitro* by post-heparin plasma, 755.

Hansky, J., and Soveny, C. Response of the pyloric and pyloric-oesophageal ligated rat to insulin and 2 deoxy-D-glucose, 381.

Harris, A. W., *see* White, D. O.

Herd, Z. L., and Ada, G. L. Distribution of ^{125}I-immunoglobulins, IgG subunits and antigen-antibody complexes in rat lymph nodes, 73.

Herd, Z. L., and Ada, G. L. The retention of ^{125}I-immunoglobulins, IgG subunits and antigen-antibody complexes in rat foot pads and draining lymph nodes, 63.

Hodge, R. L. Investigation of a possible β-blocking action of prenylamine in man, 651.

Hope, R. M., and Mayo, O. Relationship of human salivary alkaline phosphatase with ABO blood group and secretor status, 235.

Howard, B. M., *see* Huxham, G. J.

Hoy, W. E., and Nelson, D. S. Studies on cytophilic antibodies.
5. Alloantibodies cytophilic for mouse macrophages, 525.

Huisman, T. H. J., *see* Blunt, M. H.

Hurse, A., *see* Butler, H. M.

Huxham, G. J., Lipton, A., and Howard, B. M. Resolution and efficiency in electromicroscopic autoradiography using radio-active calcium, 299.

Huxtable, C. R. Experimental reproduction and histo-pathology of *Swainsona galegifolia* poisoning in the guinea-pig, 339.

Ielasi, A., and Kotlarski, I. Species variation in antibody response.
1. Quantitation of bactericidal antibody production to *S. typhimurium* in rats and mice, 689.

Jackson, G. D. F., and Jenkin, C. R. Further studies on artificial antigens and immunity to mouse typhoids.
2. The ability of galactans containing various acyl groups to immunise mice against mouse typhoid, 91.

Jenkin, C. R., *see* Jackson, G. D. F., McIntyre, J., and McKay, D.

Jones, M. A. S., and Lafferty, K. J. Characteristics of lymphocyte transfer reactions produced in sheep, 159.

Jones, M. A. S., Yamashita, A., and Lafferty, K. J. Lymphocyte transfer reactions and antigen mediated hypersensitivity reactions produced in the skin of sheep—a histological study, 325.

Jones, M. A. S., *see also* Lafferty, K. J.

Kakulas, B. A., *see* Durack, D. T.

Kenrick, K. G., *see* Margolis, J.

Knight, P. R., *see* Chalmers, A. H., and Marshall, V. R.

Kotlarski, I., *see* Ielasi, A.

Lafferty, K. J., and Jones, M. A. S. Reactions of the graft versus host (GVH) type, 17.

Lafferty, K. J., *see also* Jones, M. A. S.

Lamond, D. R., *see* Martin, F. I. R.

Lande, de la, *see* De la Lande.

Lascelles, A. K., Gurner, B. W., and Coombs, R. R. A. Some properties of human colostral cells, 349.

Lascelles, A. K., *see also* Lee, C. S., and McDowell, G. H.

Laycock, G. M., *see* Dwyer, F. P.

Lee, C. S., and Lascelles, A. K. The histological changes in involuting mammary glands of ewes in relation to the local allergic response, 613.

Lehman, R. G., *see* Campbell, L. B.

Lemcke, R. M., *see* Plackett, P.

Lemon, M., and Poole, W. E. Specific proteins in the whey from milk of the grey kangaroo, 283.

Lewis, J. P., *see* Blunt, M. H.

Lintern, S. M., and Barker, S. Renal retention of urea in the Kangaroo Island wallaby, *Protemnodon eugenii* (Desmarest), 243.

Lipton, A., *see* Huxham, G. J.

Lumbers, E. R., and Skinner, S. L. The occurrence and assay of renin in human urine, 251.

McDowell, G. H., and Lascelles, A. K. Local production of antibody by ovine mammary glands infused with Salmonella flagellar antigens, 669.

McIntyre, J., and Jenkin, C. R. Chemotaxis in the free living amoeba (*Hartmannella rhysodes*), 625.

McIntyre, K. H., and Williams, V. J. The role of the bladder in nitrogen retention in sheep, 633.

McKay, D., Jenkin, C. R., and Rowley, D. Immunity in the invertebrates.
1. Studies on the naturally occurring haemagglutinins in the fluid from invertebrates, 125.

Maclaurin, B. P. Macrophage interlinkage reaction induced by phytohaemagglutinin and by tuberculin, 105.

Mandel, T. Epithelial cells and lymphopoiesis in the cortex of guinea-pig thymus, 153.

Marchalonis, J. J., Ealey, E. H. M., and Diener, E. Immune response of the tuatara, *Sphenodon punctatum*, 367.

Marchalonis, J. J. Isolation and immunoglobulin-like proteins of the Australian lungfish (*Neoceratodus forsteri*), 405.

Margolis, J., and Kenrick, K. G. "Pregnancy protein" in polyacrylamide gradient-gel electrophoresis, 637.

Marmion, B. P., *see* Plackett, P.

Marshall, V. R., and Knight, P. R. The effect of antilymphocyte serum (ALS) on the secondary immune response in mice, 275.

Martin, F. I. R., Bindon, B. M., and Lamond, D. R. Collaborative bioassay of follicle stimulating hormone by the hypophysectomised mouse uterus augmentation assay, 281.

Maxwell, G. The effect of prostaglandin $F_{2\alpha}$ upon coronary venous flow and myocardial metabolism, 713.

Mayo, O., *see* Hope, R. M.

Metcalf, D., and Stanley, E. R. Quantitative studies on the stimulation of mouse bone marrow colony growth *in vitro* by normal human urine, 453.

Metcalf, D., *see also* Stanley, E. R.

Mims, C. A. Uptake of heparin by peritoneal macrophages, 157.

Morgan, E. H. Transferrin and albumin distribution and turnover in the rabbit, 361.

Morgan, M. W. Simpson-, *see* Simpson-Morgan, M. W.

Morris, B., *see* Smeaton, T. C.

Moss, F. J., *see* Rickard, P. A. D.

Naor, D., Bentwich, Z., and Cividalli, G. Inability of peripheral lymphoid cells of agammaglobulinaemic patients to bind radioiodinated albumins, 759.

Nelson, D. S., *see* Hoy, W. E.

Papadimitriou, J. M., *see* Yadav, M.

Plackett, P., Marmion, B. P., Shaw, E. J., and Lemcke, R. M. Immunochemical analysis of *Mycoplasma pneumoniae*.
3. Separation and chemical identification of serologically active lipids, 171.

Pode, W. E., *see* Lemon, M.

Purves, H. D., and Sirett, N. E. The fluorimetric estimation of cortisol in human plasma, 589.

Pym, J., *see* Campbell, L. B.

Read, W. M. F., *see* Beal, R. W.

Reid, I. K., *see* Dwyer, F. P.

Richardson, B. J., and Russell, E. M. Changes with ages in the proportion of nucleated red blood cell types and in the type of haemoglobin in kangaroo pouch young, 573.

Rickard, P. A. D., Moss, F. J., and Sam, C. T. Variations in the ability of yeasts cultured in oxygen-controlled environments to oxidize NADH, 521.

Roberts, J. C., and Courtice, F. C. Immunoelectrophoretic analysis of proteins in lymph from the leg before and after thermal injury, 435.

Roberts, J. C., and Courtice, F. C. Measurements of protein leakage in the acute and recovery stages of a thermal injury, 421.

Robertson memorial lecture, *see* Brailsford Robertson memorial lecture.

Rogers, G. E., *see* Bhaskaran, K.

Ronaldson, J. W. Progesterone in uterine venous plasma of the pregnant ewe, 679.

Rowley, D., *see* Bateman, R. G., and McKay, D.

Russell, E. M., *see* Richardson, B. J.

Sallis, J. D. Influence of the parathyroids and inorganic phosphate on alkaline phosphatase activity in the rat, 149.

Sam, C. T., *see* Rickard, P. A. D.

Shaw, E. J., *see* Plackett, P.

Sheil, A. G. R. Pathologic changes in canine renal allografts with prolonged function, 55.

Shew, M., *see* White, D. O.

Shortman, K., and Szenberg, A. The size and density distribution of fowl blood lymphocytes initiating a graft-versus-host reaction, 1.

Shulman, A., *see* Butler, H. M., Dwyer, F. P., and White, D. O.

Simpson-Morgan, M. W., *see* Smeaton, T. C.

Sirett, N. E., *see* Purves, H. D .

Skinner, S. L., *see* Lumbers, E. R.

Smeaton, T. C., Cole, G. J., Simpson-Morgan, M. W., and Morris, B. Techniques for the long-term collection of lymph from the unanaesthetized foetal lamb *in utero*, 565.

Somers, M., and Gawthorne, J. M. The effect of dietary cobalt intake on the plasma vitamin B_{12} concentration of sheep, 227.

Somers, M. Volatile fatty-acid clearance studies in relation to vitamin B_{12} deficiency in sheep, 219.

Soveny, C., *see* Hansky, J.

Speden, R. N. The influence of the periarterial nerve fibres on an isolated and perfused small mesenteric artery, 553.

Stacy, B. D., *see* Wilson, B. W.

Stanley, E. R., and Metcalf, D. Partial purification and some properties of the factor in normal and leukaemic human urine stimulating mouse bone marrow colony growth *in vitro*, 467.

Stanley, E. R., *see also* Metcalf, D.

Szenberg, A., *see* Shortman, K.

Thorburn, G. D., *see* Wilson, B. W.

Thursky, E., *see* Butler, H. M.

Tracy, G. D., *see* Furneaux, R. W.

White, D. O., Harirs, A. W., Cheyne, I. M., Shew, M., Shulman, A., and Bradley, T. R. Actions of metal chelates of substituted 1,10-phenanthrolines on viruses and cells. 3. Actions on cultured cells, 81.

White, D. O., *see also* Cheyne, I. M.

Whitehead, R. H. Experimental infection of vertebrates with Ross River and Sindbis viruses, two group A arboviruses isolated in Australia, 11.

Williams, V. J., *see* McIntyre, K. H.

Wilson, B. W., Stacy, B. D., and Thorburn, G. D. Automated determination of inulin in the estimation of glomerular filtration rate, 113.

Wilson, J. A. F., *see* Creed, K. E.

Yadav, M., and Papadimitriou, J. M. The ultrastructure of the neonatal thymus of a marsupial, *Setonix brachyurus*, 653.

Yamashita, A., *see* Jones, M. A. S.

THE AUSTRALIAN JOURNAL OF EXPERIMENTAL BIOLOGY AND MEDICAL SCIENCE

VOLUME XLVII

SUBJECT INDEX

ABO blood group, *see* Blood group, ABO.

Acid and pepsin secretion in response to endogenous and exogenous cholinergic stimulation and pentapeptide (Cooke), 197.

Agammaglobulinaemic patients, inability of peripheral lymphoid cells of, to bind radioiodinated albumins (Naor, Bentwich and Cividalli), 759.

Albumin and transferrin distribution and turnover in the rabbit (Morgan), 361.

Albumin, distribution of, between plasma and thoracic duct lymph after haemorrhage (Furneaux and Tracy), 447.

Amoeba, (*Hartmannella rhysodes*), free-living, chemotaxis in the (McIntyre and Jenkin), 625.

Amylase isozymes, electrophoresis of human saliva and identification of inherited variants of (Boettcher and de la Lande), 97.

Antibodies, cytophilic, studies on.
5. Alloantibodies cytophilic for mouse macrophages (Hoy and Nelson), 525.

Antibody-forming cells, the development of clones of, in the spleens of irradiated mice.
1. Detection of plaque-forming cell colonies, and their relationship to haemolytic foci (Cunningham), 485.
2. Some properties of plaque-forming cell colonies, and evidence for their clonal nature (Cunningham), 493.

Antibody, local production of, by ovine mammary glands infused with Salmonella flagellar antigens (McDowell and Lascelles), 669.

Antibody response, species variation in.
1. Quantitation of bactericidal antibody production to *S. typhimurium* in rats and mice (Ielasi and Kotlarski), 689.

Antigen mediated hypersensitivity reactions, and lymphocyte transfer reactions, produced in the skin of sheep—a histological study (Jones, Yamashita and Lafferty), 325.

Antilymphocyte serum (ALS), the effect of, on the secondary immune response in mice (Marshall and Knight), 275.

Australian lungfish, *see* Lungfish, Australian.

Autoradiography, electronmicroscopic, resolution and efficiency in, using radio-active calcium (Huxham, Lipton and Howard), 299.

Bactericidal action of selected phenanthroline chelates and related compounds (Butler, Hurse, Thursky and Shulman), 541.

Biological action of 1,10-phenanthroline and 2,2′-bipyridine hydrochlorides, quaternary salts and metal chelates and related compounds.
1. Bacteriostatic action on selected gram-positive, gram-negative and acid-fast bacteria (Dwyer, Reid, Shulman, Laycock and Dixson), 203.

2,2′-Bipyridine and 1,10-phenanthroline hydrochlorides, quaternary salts and metal chelates and related compounds, the biological actions of.
1. Bacteriostatic action on selected gram-positive, gram-negative and acid-fast bacteria (Dwyer, Reid, Shulman, Laycock and Dixson), 203.

Bladder, the role of, in nitrogen retention in sheep (McIntyre and Williams), 633.

Bladder, urinary, of the lizard *Tiliqua scincoides scincoides* (Shaw), mechanics of the (Goddard), 701.

Blood cell types, nucleated red, changes with ages in the proportion of, and in the type of haemoglobin in kangaroo pouch young (Richardson and Russell), 573.

Blood flow, simultaneous calf and forearm, during immersion in man (Campbell, Gooden, Lehman and Pym), 747.

Blood group, ABO, and secretor status, relationship of human salivary alkaline phosphatase with (Hope and Mayo), 235.

Bone marrow colony, mouse, partial purification and some properties of the factor in normal and leukaemic human urine stimulating growth, *in vitro* (Stanley and Metcalf), 467.

Bone marrow colony, mouse, quantitative studies on the stimulation of growth *in vitro*, by normal human urine (Metcalf and Stanley), 453.

Calcium, radioactive, resolution and efficiency in electronmicroscopic autoradiography using (Huxham, Lipton and Howard), 299.

Catecholamines, depletion of, from rat heart by phenoxybenzamine, tyramine and reserpine (Chang and Fearn), 319.

Chemotaxis in the free living amoeba (*Hartmannella rhysodes*) (McIntyre and Jenkin), 625.

Cholesterol, the transport of, in thoracic duct lymph of animals fed cholesterol with varying triglyceride loads (Fraser and Courtice), 723.

Cholinergic stimulation, endogenous and exogenous, and pentapeptide, acid and pepsin secretion in response to (Cooke), 197.

Civilisation, the impact of, on human biology (Boyden), 287.

Clones of antibody-forming cells in the spleens of irradiated mice, the development of.
1. Detection of plaque-forming cell colonies, and their relationship to haemolytic foci (Cunningham), 485.
2. Some properties of plaque-forming cell colonies, and evidence for their clonal nature (Cunningham), 493.

Cobalt intake, dietary, the effect of, on the plasma vitamin B_{12} concentration of sheep (Somers and Gawthorne), 227.

Cobamides and cobinamides, a method for the estimation of nanogram amounts of, in sheep rumen contents (Gawthorne), 311.

Colostral cells, human, some properties of (Lascelles, Gurner and Coombs), 349.

Columba livia, see Pigeon.

Coronary venous flow and myocardial metabolism, the effect of prostaglandin $F_{2\alpha}$ upon (Maxwell), 713.

Cortisol in human plasma, the fluorimetric estimation of (Purves and Sirett), 589.

Cytophilic antibodies, *see* Antibodies, cytophilic.

Diffusion chambers, thin, for *in vivo* culture and cytological study of tissue (Finckh), 643.

Diplococcus pneumoniae type III, *see Pneumococcus* type III.

Fatty-acid, volatile, clearance studies in relation to vitamin B_{12} deficiency in sheep (Somers), 219.

Fibrinolytic activity, tissue, in obesity (Grace and Goldrick), 397.

Florey, Lord, of Adelaide, memorial to the late, part 2, p. ii.

Fluorimetric estimation of cortisol in human plasma (Purves and Sirett), 589.

Foetal lamb *in utero*, unanaesthetized techniques for the long-term collection of lymph from the (Smeaton, Cole, Simpson-Morgan and Morris), 565.

Follicle stimulating hormone, collaborative bioassay of, by the hypophysectomised mouse uterus augmentation assay (Martin, Bindon and Lamond), 281.

Glomerular filtration rate, automated determination of inulin in the (Wilson, Stacy and Thorburn), 113.

Graft-versus-host reaction, the size and distribution of fowl blood lymphocytes initiating a (Shortman and Szenberg), 1.

Graft versus host (GVH) type, reactions of the (Lafferty and Jones), 17.

Haemoglobin, changes with ages in the type of and proportion of nucleated red blood cell types, in kangaroo pouch young (Richardson and Russell), 573.

Haemoglobin C, the production of, in adult sheep and goats (Blunt, Huisman and Lewis), 601.

Haemoglobins, sheep and goat, immunological studies of (Agar and Evans), 401.

Haemorrhage, distribution of albumin between plasma and thoracic duct lymph after (Furneaux and Tracy), 447.

Hartmannella rhysodes, see Amoeba.

Heart, rat, depletion of catecholamines from, by phenoxybenzamine, tyramine and reserpine (Chang and Fearn), 319.

Heparin, uptake of, by peritoneal macrophages (Mims), 157.

Histological changes in involuting mammary glands of ewes in relation to the local allergic response (Lee and Lascelles), 613.

Hypersensitivity, delayed, in murine pulmonary pertussis (Cheers), 513.

Hypophysectomised mouse uterus augmentation assay, collaborative bioassay of follicle stimulating hormone by the (Martin, Bindon and Lamond), 281.

Immersion in man, simultaneous calf and forearm blood flow during (Campbell, Gooden, Lehman and Pym), 747.

Immune response of the tuatara, *Sphenodon punctatum* (Marchalonis, Ealey and Diener), 367.

Immune response, secondary, in mice, the effect of antilymphocyte serum (ALS) on (Marshall and Knight), 275.

Immunity in the invertebrates.
1. Studies on the naturally occurring haemagglutinins in the fluid from invertebrates (McKay, Jenkin and Rowley), 125.

Immunity to mouse typhoid, further studies on artificial antigens and.
2. The ability of galactans containing various acyl groups to immunise mice against mouse typhoid (Jackson and Jenkin), 91.

Immunochemical analysis of *Mycoplasma pneumoniae*.
3. Separation and chemical identification of serologically active lipids (Plackett, Marmion, Shaw and Lemcke), 171.

Immunoglobulin-like proteins of the Australian lungfish (*Neoceratodus forsteri*), isolation and characterization of (Marchalonis), 405.

[^{125}I]-Immunoglobulins, IgG subunits and antigen-antibody complexes, distribution of, in rat lymph nodes (Herd and Ada), 73.

[^{125}I]-Immunoglobulins, IgG subunits and antigen-antibody complexes, the retention of, in rat foot pads and draining lymph nodes (Herd and Ada), 63.

Immunological studies of sheep and goat haemoglobins (Agar and Evans), 401.

Impact of civilisation on human biology (Boyden), 287.

Insulin and 2 deoxy-D-glucose, response of the pyloric and pyloric oesophageal ligated rat to (Hansky and Soveny), 381.

Insulin-type, an abnormality of, in patients with myocardial infarction (Elliott), 305.

Inulin, automated determination of, in the estimation of glomerular filtration rate (Wilson, Stacy and Thorburn), 113.

Invertebrates, immunity in the.
1. Studies on the naturally occurring haemagglutinins in the fluid from invertebrates (McKay, Jenkin and Rowley), 125.

Kangaroo, grey, specific proteins in the whey from milk of the (Lemon and Poole), 283.

Kangaroo Island wallaby, *see* Wallaby, Kangaroo Island.

Kangaroo pouch young, changes with ages in the proportion of nucleated red blood all types and in the type of haemoglobin in (Richardson and Russell), 573.

Latency of response of secretory acinar cells to nerve stimulation in the submandibular gland of the cat (Creed and Wilson), 135.

Life cycle of virulent toxoplasma in cell cultures (Bommer), 505.

Lizard *Tiliqua scincoides scincoides* (Shaw), mechanics of the urinary bladder of the (Goddard), 701.

Lungfish, Australian (*Neoceratodus forsteri*), isolation and characterization of immunoglobulin-like proteins of the (Marchalonis), 405.

Lymph from the leg, immunoelectrophoretic analysis of proteins in, before and after thermal injury (Roberts and Courtice), 435.

Lymph nodes, draining, and rat foot pads, the retention of ^{125}I-immunoglobulins, IgG subunits and antigen-antibody complexes in (Herd and Ada), 63.

Lymph nodes, rat, distribution of ^{125}I-immunoglobulins, IgG subunits and antigen-antibody complexes in (Herd and Ada), 73.

Lymph, plasma and thoracic duct, distribution of albumin between, after haemorrhage (Furneaux and Tracy), 447.

Lymph, techniques for the long-term collection of, from the unanaesthetized foetal lamb *in utero* (Smeaton, Cole, Simpson-Morgan and Morris), 565.

Lymph, thoracic duct, the transport of cholesterol in, of animals fed cholesterol with varying triglyceride loads (Fraser and Courtice), 723.

Lymphocyte transfer reactions and antigen mediated hypersensitivity reactions produced in the skin of sheep—a histological study (Jones, Yamashita and Lafferty), 325.

Lymphocyte transfer reactions produced in sheep, characteristics of (Jones and Lafferty), 159.

Lymphocytes, fowl blood, the size and density distribution of, initiating a graft-versus-host reaction (Shortman and Szenberg), 1.

Lymphoid cells, peripheral, inability of, of agammaglobulinaemic patients to bind radioiodinated albumins (Naor, Bentwich and Cividalli), 759.

Lymphopoiesis, and epithelial cells, in the cortex of guinea-pig thymus (Mandel), 153.

Macrophage interlinkage reaction induced by phytohaemagglutinin and by tuberculin (Maclaurin), 105.

Macrophages, peritoneal, uptake of heparin by (Mims), 157.

Mammary glands, involuting, of ewes, the histological changes in, in relation to the local allergic response (Lee and Lascelles), 613.

Mammary glands, ovine, infused with Salmonella flagellar antigens, local production of antibody by (McDowell and Lascelles), 669.

Marsupial, *Setonix brachyurus*, the ultrastructure of the neonatal thymus of a (Yadav and Papadimitriou), 653.

Mesenteric artery, small, isolated and perfused, the influence of the periarterial nerve fibres on an (Speden), 553.

Metal chelates, 1,10-phenanthroline and 2,2'-bipyridine hydrochlorides, quaternary salts, and related compounds, the biological actions of.
1. Bacteriostatic action on selected gram-positive, gram-negative and acid-fast bacteria (Dwyer, Reid, Shulman, Laycock and Dixson), 203.

Milk of the grey kangaroo, specific proteins in the whey from (Lemon and Poole), 283.

Mycoplasma pneumoniae, immunochemical analysis of.
3. Separation and chemical identification of serologically active lipids (Plackett, Marmion, Shaw and Lemcke), 171.

Myocardial infarction, an abnormality of insulin-type in patients with (Elliott), 305.

Myocardial metabolism and coronary venous flow, the effect of prostaglandin $F_{2\alpha}$ upon (Maxwell), 713.

Myopathy, nutritional, electrophysiological studies in the Rottnest quokka with (Durack, Gubbay and Kakulas), 581.

NADH, variations in the ability of yeasts cultured in oxygen-controlled environments to oxidize (Rickard, Moss and Sam), 521.

Neoceratodus forsteri, see Lungfish, Australian.

Nitrogen retention in sheep, the role of the bladder in (McIntyre and Williams), 633.

Obesity, tissue fibrinolytic activity in (Grace and Goldrick), 397.

Paramyxoviruses, growth of, in anucleate cells (Cheyne and White), 145.

Parathyroids and inorganic phosphate, influence of the, on alkaline phosphatase activity in the rat (Sallis), 149.

Pathologic changes in canine renal allografts with prolonged function (Shiel), 55.

Pentapeptide, and endogenous and exogenous cholinergic stimulation, acid and pepsin secretion in response to (Cooke), 197.

Periarterial nerve fibres, the influence of the, on an isolated and perfused small mesenteric artery (Speden), 553.

Pertussis, murine pulmonary, delayed hypersensitivity in (Cheers), 513.

1,10-Phenanthroline and 2,2'-bipyridine hydrochlorides, quaternary salts and metal chelates and related compounds, the biological actions of.
1. Bacteriostatic action on selected gram-positive, gram-negative and acid-fast bacteria (Dwyer, Reid, Shulman, Laycock and Dixson), 203.

Phenanthroline chelates and related compounds, selected, bactericidal action of (Butler, Hurse, Thursky and Shulman), 541.

1,10-Phenanthrolines, actions of metal chelates of substituted, on viruses and cells.
3. Actions on cultured cells (White, Harris, Cheyne, Shew, Shulman and Bradley), 81.

Phenoxybenzamine, tyramine and reserpine, depletion of catecholamines from rat heart by (Chang and Fearn), 319.

Phosphatase, alkaline, activity in the rat, influence of the parathyroids and inorganic phosphate on (Sallis), 149.

Phytohaemagglutinin, macrophage interlinkage reaction induced by, and by tuberculin (Maclaurin), 105.

Pigeons, the natural resistance of, to type III pneumococcus (Bateman and Rowley), 733.

Plasma, human, the fluorimetric estimation of cortisol in (Purves and Sirett), 589.

Plasma protein binding of [^{58}Co]-vitamin B_{12}, studies on the.
5. Relationship of granulocytes to binding capacity (Beal and Read), 387.
6. Binding capacity of separated protein fractions (Beal and Read), 393.

Platelet adhesiveness *in vitro*, reduction of, by post-heparin plasma (Ham), 755.

Pneumococcus, type III, the natural resistance of pigeons to (Bateman and Rowley), 733.

Post-heparin plasma, reduction of platelet adhesiveness *in vitro* by (Ham), 755.

"Pregnancy protein" in polyacrylamide gradient-gel electrophoresis (Margolis and Kenrick), 637.

Pregnant ewe, progesterone in uterine venous plasma of the (Ronaldson), 679.

Prenylamine, investigation of a possible β-blocking action of, in man (Hodge), 651.

Progesterone in uterine venous plasma of the pregnant ewe (Ronaldson), 679.

Prostaglandin $F_{2\alpha}$, the effect of, upon coronary venous flow and myocardial metabolism (Maxwell), 713.

Protein leakage, measurements of, in the acute and recovery stages of a thermal injury (Roberts and Courtice), 421.

Proteins, immunoelectrophoretic analysis of, in lymph from the leg before and after thermal injury (Roberts and Courtice), 435.

Proteins specific, in the whey from milk of the grey kangaroo (Lemon and Poole), 283.

Protemnodon eugenii (Desmarest), *see* Wallaby, Kangaroo Island.

Purine oxidases, 6-thiopurines as substrates and inhibitors of: a pathway for conversion of azathioprine into 6-thiouric acid without release of 6-mercaptopurine (Chalmers, Knight and Atkinson), 263.

Pyloric and pyloric-oesophageal ligated rat, response of the, to insulin and 2 deoxy-D-glucose (Hansky and Soveny), 381.

Quokka, Rottnest, with nutritional myopathy, electrophysiological studies in the (Durack, Gubbay and Kakulas), 581.

Renal allografts, canine, with prolonged function, pathologic changes in (Sheil), 55.

Renin, the occurrence and assay of, in human urine (Lumbers and Skinner), 251.

Ross River and Sindbis viruses, two group A arboviruses isolated in Australia, experimental infection of vertebrates with (Whitehead), 11.

Rottnest quokka, *see* Quokka, Rottnest.

Saliva, human, electrophoresis of, and identification of inherited variants of amylase isozymes (Boettcher and de la Lande), 97.

Salivary alkaline phosphatase, human, relationship of, with ABO blood group and secretor status (Hope and Mayo), 235.

Setonix brachyurus, see Quokka, Rottnest.

Sex pili in *Vibrio cholerae* (Bhaskaran, Dyer and Rogers), 647.

Sheep and goats, adult, the production of haemoglobin C in (Blunt, Huisman and Lewis), 601.

Sheep rumen contents, a method for the estimation of nanogram amounts of cobamides and cobinamides in (Gawthorne), 311.

Sindbis and Ross River viruses, two group A arboviruses isolated in Australia, experimental infection of vertebrates with (Whitehead), 11.

Size and density distribution of fowl blood lymphocytes initiating a graft-versus-host reaction (Shortman and Szenberg), 1.

Species variation in antibody response.
1. Quantitation of bactericidal antibody production to *S. typhimurium* in rats and mice (Ielasi and Kotlarski), 689.

Sphenodon punctatum, see Tuatara.

Submandibular gland of the cat, the latency of response of secretory acinar cells to nerve stimulation in the (Creed and Wilson), 135.

Swainsona galegifolia poisoning in the guinea-pig, experimental reproduction and histopathology of (Huxtable), 339.

Thermal injury, immunoelectrophoretic analysis of proteins in lymph from the leg before and after (Roberts and Courtice), 435.

Thermal injury, measurements of protein leakage in the acute and recovery stages of a (Roberts and Courtice), 421.

6-Thiopurines as substrates and inhibitors of purine oxidases: a pathway for conversion of azathioprine into 6-thiouric acid without release of 6-mercaptopurine (Chalmers, Knight and Atkinson), 263.

Thymus, guinea-pig, epithelial cells and lymphopoiesis in the cortex of (Mandel), 153.

Thymus, neonatal, of a marsupial, *Setonix brachyurus*, the ultrastructure of the (Yadav and Papadimitriou), 653.

Tiliqua scincoides scincoides (Shaw), *see* Lizard.

Tissue, thin diffusion chambers for *in vivo* culture and cytological study of (Finckh), 643.

Toxoplasma, virulent, the life cycle of, in cell cultures (Bommer), 505.

Transferrin and albumin distribution and turnover in the rabbit (Morgan), 361.

Triglyceride, the transport of cholesterol in thoracic duct lymph of animals fed cholesterol with varying loads (Fraser and Courtice), 723.

Tuatara, *Sphenodon punctatum*, immune response of the (Marchalonis, Ealey and Diener), 367.

Typhoid, mouse, further studies on artificial antigens and immunity to.
2. The ability of galactans containing various acyl groups to immunise mice against mouse typhoid (Jackson and Jenkin), 91.

Urea, renal retention of, in the Kangaroo Island wallaby, *Protemnodon eugenii* (Desmarest) (Lintern and Barker), 243.

Urine, human, the occurrence and assay of renin in (Lumbers and Skinner), 251.

Urine, normal and leakaemic human, partial purification and some properties of the factor in, stimulating mouse bone marrow colony growth *in vitro* (Stanley and Metcalf), 467.

Urine, normal human, quantitative studies on the stimulation of mouse bone marrow colony growth *in vitro* by (Metcalf and Stanley), 453.

Uterine venous plasma of the pregnant ewe, progesterone in (Ronaldson), 679.

Vibrio cholerae, sex pili in (Bhaskaran, Dyer and Rogers), 647.

Virus, Ross River, *see* Ross River virus.

Virus, Sindbis, *see* Sindbis virus.

Vitamin B_{12} deficiency in sheep, volatile fatty-acid clearance studies in relation to (Somers), 219.

Vitamin B_{12}, plasma, concentration of sheep, the effect of dietary cobalt intake on the (Somers and Gawthorne), 227.

[^{58}Co]-Vitamin B_{12}, studies on the plasma protein binding of.
5. Relationship of granulocytes to binding capacity (Beal and Read), 387.
6. Binding capacity of separated protein fractions (Beal and Read), 393.

Wallaby, Kangaroo Island, *Protemnodon eugenii* (Desmarest), renal retention of urea in the (Lintern and Barker), 243.

Yeasts cultured in oxygen-controlled environments, variations in the ability of, to oxidize NADH (Rickard, Moss and Sam), 521.